

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

Claim 1. (Canceled)

2. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the compound is adapted to, or is capable of carrying or transporting a drug,~~preferably in vivo~~.

3. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the compound is adapted to be transported by a PepT1 protein or a PepT2 protein.

4. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the thiopeptide comprises at least two amino acids or derivatives or analogues thereof.

5. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the compound comprises a thiodipeptide or a thiotripeptide or derivatives or analogues thereof.

6. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the compound comprises a serine, aspartate or glutamate residue as a C-terminal residue.

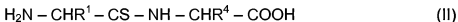
7. (Currently Amended) The drug conjugate of claim 28A~~compound according to claim 4~~, wherein the thiopeptide comprises at least one thio group, which thio group is attached at, or towards, an N-terminal thereof.

8. (Currently Amended) The drug conjugate of claim 28A ~~compound according to claim 4, wherein~~ the compound has formula I:-



wherein R^1 , R^2 , R^3 , R^4 , and R^5 are independently selected from a group consisting of a hydrogen; a linear or branched alkyl group; a dialkyl group; a N-alkyl group; and a side chain group of an amino acid residue; and wherein X is independently selected from a hydroxyl group; an amino acid residue; an amide; an amide link to a third residue; a peptide; and a thiopeptide.

9. (Currently Amended) The drug conjugate of claim 28A ~~compound according to claim 4, wherein~~ the compound has formula II:-



wherein R^1 , and R^4 are independently selected from a group consisting of a hydrogen; a linear or branched alkyl group; an alkyl chain attached to other functional groups; and a side chain group of an amino acid residue.

10. (Currently Amended) The drug conjugate of claim 9A ~~compound according to claim 9, wherein~~ the functional group includes amine; amide; ester; acid; alcohol; ether; thiol; thioether; and aryl, or aromatic compound.

11. (Currently Amended) The drug conjugate of A ~~compound according to claim 8, wherein~~ R^4 is adapted to be attached to a drug molecule.

12. (Currently Amended) The drug conjugate of A ~~compound according to any claim 8, wherein~~ R^4 comprises an alcohol or a carboxylic acid group.

13. (Currently Amended) The drug conjugate of A compound according to any claim 8, wherein R^4 comprises an alkyl chain attached to an alcohol or a carboxylic acid group.

14. (Currently Amended) The drug conjugate of A compound according to any ~~one of~~ claims 13, wherein the alkyl group or alkyl chain comprises a C_{1-20} chain.

15. (Currently Amended) The drug conjugate of A compound according to claim 8, wherein R^4 is an amino acid side chain group comprising an alcohol or a carboxylic acid group.

16. (Currently Amended) The drug conjugate of A compound according to claim 8, wherein R^4 is a side chain group of any amino acid residue.

17. (Currently Amended) The drug conjugate of A compound according to claim 8, wherein R^4 is a side chain group of an amino acid side chain group independently selected from a group consisting of serine; threonine; glutamic acid; aspartic acid; and tyrosine.

18. (Currently Amended) The drug conjugate of A compound according to any claim 8, wherein R^4 is a side chain group of serine; glutamic acid; or aspartic acid.

19. (Currently Amended) The drug conjugate of A compound according to any claim 8, wherein R^4 comprises a spacer comprising spacing means, which spacing means is constructed and arranged ~~comprising spacing means, which spacing means is constructed and arranged~~ ~~to distance the drug~~ ~~[[adapted]]~~ to distance the drug ~~[[away]]~~ from the thiopeptide when bound thereto.

20. (Currently Amended) The drug conjugate of A compound according to claim 19, wherein the spacer ~~spacing means~~ comprises an alkyl chain, or an alkyl chain

incorporating ether, amino, ester, amide or carbonyl groups, with a terminal group appropriate functionalisation at it's termini for attachment to the thiopeptide compound and the drug[[molecule]].

21. (Currently Amended) ~~The drug conjugate of A compound according to claim~~ 19, wherein the ~~spacers~~spacing means comprises $[-CH_2-]_n$, wherein the value of n is an integer of at least 1.

22. (Currently Amended) ~~The drug conjugate of A compound according to claim~~ 19, wherein the ~~spacers~~spacing means comprises $[-CH_2-O-CH_2-]_n$, wherein n is an integer of at least one.

23. (Currently Amended) ~~The drug conjugate of A compound according to claim~~ 8, wherein R^1 comprises a side chain group of any amino acid residue.

24. (Currently Amended) ~~The drug conjugate of A compound according to claim~~ 23, wherein the amino acid side chain group of R^1 is independently selected from a group consisting of (i) H (glycine); (ii) Me (alanine); (iii) CH_2Ph (phenylalanine); (iv) $CHMe_2$ (valine); (v) CH_2OH (serine); (vi) CH_2SH (cysteine); (vii) CH_2CO_2H (aspartate); (viii) CH_2CONH_2 (asparagine); and (ix) $(CH_2)_4NH_2$ (lysine).

25. (Currently Amended) ~~The drug conjugate of claim 28A compound according to claim 4,~~ wherein a functional group to which a drug is attached is protected by a protection group.

Claim 26. (Canceled)

27. (Currently Amended) ~~The drug conjugate of claim 28~~~~A drug carrier according to claim 26~~, wherein the thiopeptide, or derivative or analogue thereof comprises the thiopeptide, or derivative or analogue of said compound~~thereof according to claim 1~~.

28. (Currently Amended) A drug conjugate comprising a drug, which drug is linked to a compound ~~according to claim 1~~, or a drug carrier, said compound comprising a thiopeptide, or derivative or analogue thereof, the thiopeptide comprising a C-terminal carboxylic acid group, and a functional group for attachment to a drug, characterised in that the compound is adapted to carry or transport a drug, and said carrier comprising a thiopeptide, or derivative or analogue thereof .

29. (Original) A drug conjugate according to claim 28, wherein attachment of the drug to the compound or drug carrier is by means of an ester linkage, ether linkage or an amide linkage.

30. (Previously Presented) A drug conjugate according to claim 28, wherein attachment of the drug occurs at residue 1 or 2 of the compound or drug carrier.

31. (Previously Presented) A drug conjugate according to claim 28, wherein the compound or the drug carrier is capable of being released or detached from the drug molecule.

32. (Currently Amended) A drug conjugate according to claim 28, in the form of ~~for use as~~ a medicament.

Claim 33. (Canceled)

34. (Currently Amended) An assay adapted to detect transportation of a conjugate according to claim 28 from a first side of a membrane to a second side of a

membrane, the assay comprising a detector constructed and arranged ~~detection means~~
~~adapted to detect the presence of the conjugate on first and second sides of the~~
membrane.

35. (Currently Amended) An assay according to claim 34, wherein the detector is
constructed and arranged for detecting ~~detection means is adapted to detect~~-UV
absorption of the thiopeptide.

36. (Currently Amended) A method of treating an individual with a drug, the
method comprising administering to an individual in need of such treatment a conjugate
according to claim 28 comprising said drug.

Claim 37. (Canceled)

Claim 38. (Canceled)

Claim 39. (Canceled)

40. (new) The drug conjugate of claim 28 wherein the drug is selected from the
group consisting of an antibiotics, an anticancer drug, an antihistamine, an
antihypertensive, an anti-inflammatory, an antimalarial, an antiviral, a beta blocker, a
bronchodilator, a cholersterol lowering agent, a CNS drug, a sedative, and a steroid.

41. (new) The drug conjugate of claim 28 wherein the drug is selected from the
group consisting of oxazepam, lorazepam and temazepam.